

## Scales and Bar Graphs

A bar graph is a way to visually display and compare numerical data. The **scale** of a bar graph is the “ruler” that measures the heights of the bars. The **intervals** are the equal divisions marked on the scale to make it easier to read. The lines on which a bar graph is built are the **horizontal axis** and the **vertical axis**. The **range** of a data set refers to the difference between the highest value and the lowest value.

### Example

Sam followed these steps to make a bar graph using the data on mountain heights.

Step 1: He used a scale from 0 to 30,000 since the highest mountain was 29,000 feet. The range of data is 15,000. He used intervals of 5,000 because 30,000 is divisible by 5,000.

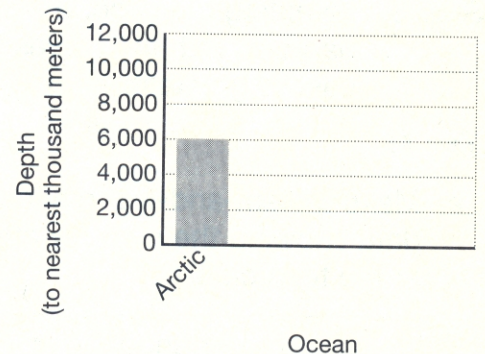
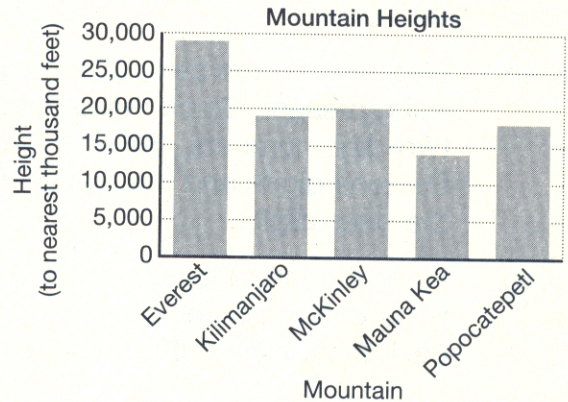
Step 2: He drew bars to represent the data and labeled the bars.

Step 3: He wrote a title for the graph.

**Try It** Use the data to complete the bar graph.

#### Ocean Depths (to nearest thousand meters)

Ocean	Depth (m)
Arctic	6,000
Indian	7,000
Atlantic	9,000
Pacific	11,000



- What is the range of the data? \_\_\_\_\_
- What interval was used on the vertical scales? \_\_\_\_\_
- Would it be reasonable to use an interval of 20,000? Explain.  
\_\_\_\_\_  
\_\_\_\_\_

- Draw bars that represent the depths of the Indian, Pacific, and Atlantic oceans.
- Label and shade the bars. Give the graph a title.
- Write a problem that can be solved using the data in the graph.  
\_\_\_\_\_  
\_\_\_\_\_